

United States Patent Application No. US 2002/0047968A1 (to Yoshida); the rejection of claims 3 - 6, 18 - 21, 30 and 31 under 35 USC 103(a) as being unpatentable over United States Patent 6,295,109 B1 (to Kubo et al) in view of United States Patent Application No. US 2002/0047968 A1 (to Yoshida et al) and further in view of United States Patent 6,542,211 B1 (to Okada); the rejection of claims 7, 8, 22 and 23 under 35 USC 103(a) as being unpatentable over United States Patent 6,295,109 B1 (to Kubo et al) in view of United States Patent Application No. US 2002/0047968 A1 (to Yoshida et al) in view of United States Patent 6,542,211 B1 (to Okada) and further in view of Kitagishi Nozomi (JP -07-318861); the rejection of claims 9 - 12 and 24 - 27 under 35 USC 103(a) as being unpatentable over United States Patent 6,295,109 B1 (to Kubo et al) in view of United States Patent Application No. US 2002/0047968 A1 (to Yoshida et al) in view of United States Patent 6,542,211 B1 (to Okada) and further in view of United States Patent 6,473,144 B1 (to Ichikawa et al); the rejection of claims 14, 15, 32 and 33 under 35 USC 103(a) as being unpatentable over United States Patent 6,295,109 B1 (to Kubo et al) in view of United States Patent Application No. US 2002/0047968 A1 (to Yoshida et al) and further in view of Tanaka (US 5,895,108); the rejection of claims 28 and 29 under 35 USC 103(a) as being unpatentable over United States Patent 6,295,109 B1 (to Kubo et al) in view of United States Patent Application No. US 2002/0047968 A1 (to Yoshida et al) in view of United States Patent 6,542,211 B1 (to Okada) and further in view of United States Patent 6,417,941 B1 (to Inoko); and the rejection of claims 34 - 37 under 35 USC 103(a) as being unpatentable over United States Patent 6,295,109 B1 (to Kubo et al) in view of United States Patent Application No. US 2002/0047968 A1 (to Yoshida et al) and further in view of United States Patent 5,729,306 (to Miyake et al); such

rejections are traversed and reconsideration and withdrawal of the rejections are respectfully requested.

As pointed out at the interview, independent claims 1 and 16 are present in this application and the remaining claims depend directly or indirectly therefrom. Such claims and the dependent claims thereof are rejected under 35 USC 103 at least based on the combination of Kubo et al and Yoshida et al, and in applying the aforementioned cited art to the claimed invention the Examiner at page 4 of the office action states:

Kubo does not appear to explicitly specify that "an optical axis of an incident light beam upon the liquid crystal layer and an optical axis of an emergent light beam from the liquid crystal layer are present in a claim which is substantially perpendicular to a direction of orientation of liquid crystal molecules on the two substrates, the incident light impinges upon the liquid crystal layer in a direction which is inclined by a predetermined angle to the direction of the normal line of the substrate and a direction of polarization of the incident light beam upon the liquid crystal layer is substantially perpendicular or parallel to the direction of the orientation of the liquid crystal molecules." (emphasis added).

Applicants submit that it is apparent that the Examiner has admitted the deficiency of Kubo et al with respect to the features of the claimed invention of independent claims 1 and 16, and therewith the dependent claims.

The Examiner then refers to Yoshida et al contending that Yoshida et al teaches and discloses a liquid crystal display device and provides other comments, while stating at page 5 of the office action:

Because the material used in Yoshida is the same liquid crystal material used by Applicant, then, the Yoshida material must therefore exhibit "an optical axis of an incident light beam upon the liquid crystal layer and an optical axis of an emergent light beam from the liquid crystal layer are present in a claim which is substantially perpendicular to a direction of orientation of liquid crystal molecules on the two substrates, the incident light impinges upon the liquid crystal layer in a direction which is inclined by a predetermined angle to the direction of the normal line of the substrate and a direction of polarization of the incident light beam upon the liquid crystal layer is substantially

perpendicular or parallel to the direction of the orientation of the liquid crystal molecules." (emphasis added)

As pointed out to the Examiners at the interview, irrespective of the Examiner's contentions and based upon the admission by the Examiner as to the deficiencies of Kubo et al, Yoshida et al does not overcome the deficiencies of Kubo et al. More particularly, irrespective of the contentions of the Examiner concerning the disclosure of Yoshida et al, applicants submit that the material of Yoshida et al does not result in the claimed features. In addition to Yoshida et al failing to disclose or teach a "reflection substrate" as recited in claim 1, and that incident light on the liquid crystal layer of the liquid crystal device is described as "vertical incident light" (see the "Abstract" of Yoshida et al), Yoshida in Fig. 1, for example, shows the liquid crystal orientation of the liquid crystal layer by the arrow direction of the liquid crystal regions 102a and 102b, as indicated in paragraph [0034]. Furthermore, plates 101a and 101b are polarizing plates in which the arrow directions thereon represent polarization axes or absorption axes which are perpendicular to one another, as described in paragraphs [0038] and [0040]. It is readily apparent that incident light passing through one of the polarization plates 101a or 101b takes the polarization provided thereby, which is not substantially perpendicular or parallel to the direction of orientation of the liquid crystal molecules, as represented by the direction of arrows in liquid crystal regions 102a and 102b. Thus, as recognized by the Examiners at the interview, applicants submit that Yoshida et al does not overcome the deficiencies of Kubo et al, as admitted by the Examiner, and the proposed combination fails to provide the claimed features of independent claims 1 and 16 and therewith the dependent claims in the sense of 35 USC 103. As such, applicants submit that the independent claims and therewith the dependent claims patentably

distinguish over this proposed combination of references in the sense of 35 USC 103 and should be considered allowable thereover.

Applicants further note that since Yoshida et al apparently discloses that the incident light is vertically incident on the liquid crystal layer, irrespective of the disclosure of Kubo et al, it cannot be considered obvious to provide an optical axis of an incident light beam upon the liquid crystal layer and an optical axis of an emergent light beam from the liquid crystal layer present in a plane which is substantially perpendicular to a direction of orientation of liquid crystal molecules, the incident light impinges upon a liquid crystal layer in a direction which is inclined by a predetermined angle to the direction of the normal line of the substrate, as well as the feature concerning the direction of polarization of the incident light beam. Thus, applicants submit that as pointed out at the interview, independent claims 1 and 16 and the dependent claims patentably distinguish over the cited art and should be considered allowable thereover.


As to the addition of all other references, as utilized by the Examiner in rejecting the claims of this application, applicants submit that irrespective of the Examiner's contentions concerning these additional references, such additional references do not overcome the deficiencies of Kubo et al and Yoshida et al, as pointed out above, and therewith, the independent and dependent claims patentably distinguish over all cited art, irrespective of the combination thereof.

In view of the above remarks and the interview conducted January 26, 2006, applicants submit that all claims present in this application patentably distinguish over the cited art and should be considered allowable thereover. Accordingly, issuance of an action of favorable nature is courteously solicited.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 500.41256X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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